

WHAT IS CLAIMED IS:

1. An apparatus for washing a plurality of cored heads of lettuce comprising
a conveyer forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached to said conveyer;
at least one lettuce head guide connected to said at least one support platform; and
an aqueous solution spraying system fixedly attached at a point along said
conveyer loop.
2. The apparatus of claim 1 wherein said conveyer further comprises
a middle segment with a first end and a second end;
a distal end segment rotatably attached to said first end;
a proximal end segment rotatably attached to said second end;
a rotator to rotate and hold in place at a desired angle said distal end segment; and
a rotator to rotate and hold in place at a desired angle said proximal end segment.
3. The apparatus of claim 2 wherein said aqueous solution spraying system is fixedly attached
at a point along said proximal end segment .
4. The apparatus of claim 1, 2, or 3 wherein said conveyer further comprises a double pitch
attachment style chain.
5. An apparatus for washing a plurality of cored heads of lettuce comprising
a conveyer forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached to said conveyer;
at least one lettuce head guide connected to said at least one support platform;

said lettuce head guide comprising outward facing vanes; and
an aqueous solution spraying system fixedly attached at a point along said
conveyor loop.

5 6. An apparatus for washing a plurality of cored heads of lettuce comprising
a conveyor forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached to said conveyor through a double pitch
10 attachment style chain;
at least one lettuce head guide connected to said at least one support platform;
said lettuce head guide comprising outward facing vanes; and
an aqueous solution spraying system fixedly attached at a point along said
conveyor loop.

15 7. An apparatus for washing a plurality of cored heads of lettuce comprising
a conveyor forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached to said conveyor;
said conveyor comprising;
20 (A) a middle segment with a first end and a second end;
(B) a distal end segment rotatably attached to said first end;
(C) a proximal end segment rotatably attached to said second end;
(D) a rotator to rotate and hold in place at a desired angle said distal
end segment; and
25 (E) a rotator to rotate and hold in place at a desired angle said proximal
end segment;

at least one lettuce head guide connected to said at least one support platform;
said lettuce head guide comprising outward facing vanes; and
an aqueous solution spraying system fixedly attached at a point along said

conveyer loop.

8. An apparatus for washing a plurality of cored heads of lettuce comprising
- 5 a conveyer forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached to said conveyer through a double pitch
attachment style chain;
said conveyer comprising;
- 10 (A) a middle segment with a first end and a second end;
(B) a distal end segment rotatably attached to said first end;
(C) a proximal end segment rotatably attached to said second end;
(D) a rotator to rotate and hold in place at a desired angle said distal
end segment; and
15 (E) a rotator to rotate and hold in place at a desired angle said proximal
end segment;
- at least one lettuce head guide connected to said at least one support platform;
said lettuce head guide comprising outward facing vanes; and
an aqueous solution spraying system fixedly attached at a point along said
conveyer loop.
- 20

9. An apparatus for washing a plurality of cored heads of lettuce comprising
- 25 a conveyer forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached to said conveyer;
said conveyer comprising;
- (A) a middle segment with a first end and a second end;
(B) a distal end segment rotatably attached to said first end;
(C) a proximal end segment rotatably attached to said second end;
(D) a rotator to rotate and hold in place at a desired angle said distal

end segment; and

- (E) a rotator to rotate and hold in place at a desired angle said proximal end segment;

at least one lettuce head guide connected to said at least one support platform;

said lettuce head guide comprising outward facing vanes; and

an aqueous solution spraying system fixedly attached at a point along said proximal end segment.

10. An apparatus for washing a plurality of cored heads of lettuce comprising

a conveyer forming a loop with a distal end and a proximal end;

at least one support platform having at least one opening;

said at least one support platform attached through a double pitch attachment style chain to said conveyer;

said conveyer comprising;

- (A) a middle segment with a first end and a second end;

- (B) a distal end segment rotatably attached to said first end;

- (C) a proximal end segment rotatably attached to said second end;

- (D) a rotator to rotate and hold in place at a desired angle said distal end segment; and

- (E) a rotator to rotate and hold in place at a desired angle said proximal end segment;

at least one lettuce head guide connected to said at least one support platform;

said lettuce head guide comprising outward facing vanes; and

an aqueous solution spraying system fixedly attached at a point along said proximal end segment.

11. An apparatus for washing a plurality of cored heads of lettuce comprising

a conveyer forming a loop with a distal end and a proximal end;

at least one support platform having at least one opening;

said at least one support platform attached to said conveyer;
at least one lettuce head guide connected to said at least one support platform;
said lettuce head guide comprising an elliptical ring; and
an aqueous solution spraying system fixedly attached at a point along said
conveyer loop.

12. An apparatus for washing a plurality of cored heads of lettuce comprising
a conveyer forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached to said conveyer through a double pitch
attachment style chain;
at least one lettuce head guide connected to said at least one support platform;
said lettuce head guide comprising an elliptical ring; and
an aqueous solution spraying system fixedly attached at a point along said
conveyer loop.

13. An apparatus for washing a plurality of cored heads of lettuce comprising
a conveyer forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached to said conveyer;
said conveyer comprising;
(A) a middle segment with a first end and a second end;
(B) a distal end segment rotatably attached to said first end;
(C) a proximal end segment rotatably attached to said second end;
(D) a rotator to rotate and hold in place at a desired angle said distal
end segment; and
(E) a rotator to rotate and hold in place at a desired angle said proximal
end segment;
at least one lettuce head guide connected to said at least one support platform;

said lettuce head guide comprising an elliptical ring; and
an aqueous solution spraying system fixedly attached at a point along said
conveyer loop.

- 5 14. An apparatus for washing a plurality of cored heads of lettuce comprising
a conveyer forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached to said conveyer through a double pitch
10 attachment style chain;
said conveyer comprising;
- (A) a middle segment with a first end and a second end;
 - (B) a distal end segment rotatably attached to said first end;
 - (C) a proximal end segment rotatably attached to said second end;
 - (D) a rotator to rotate and hold in place at a desired angle said distal
15 end segment; and
 - (E) a rotator to rotate and hold in place at a desired angle said proximal
end segment;
- at least one lettuce head guide connected to said at least one support platform;
said lettuce head guide comprising an elliptical ring; and
20 an aqueous solution spraying system fixedly attached at a point along said
conveyer loop.

- 25 15. An apparatus for washing a plurality of cored heads of lettuce comprising
a conveyer forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached to said conveyer;
said conveyer comprising;
- (A) a middle segment with a first end and a second end;
 - (B) a distal end segment rotatably attached to said first end;

- (C) a proximal end segment rotatably attached to said second end;
- (D) a rotator to rotate and hold in place at a desired angle said distal end segment; and
- (E) a rotator to rotate and hold in place at a desired angle said proximal end segment;

at least one lettuce head guide connected to said at least one support platform;
said lettuce head guide comprising an elliptical ring; and
an aqueous solution spraying system fixedly attached at a point along said proximal end segment.

16. An apparatus for washing a plurality of cored heads of lettuce comprising
a conveyer forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached through a double pitch attachment style chain to said conveyer;
said conveyer comprising;
- (A) a middle segment with a first end and a second end;
 - (B) a distal end segment rotatably attached to said first end;
 - (C) a proximal end segment rotatably attached to said second end;
 - (D) a rotator to rotate and hold in place at a desired angle said distal end segment; and
 - (E) a rotator to rotate and hold in place at a desired angle said proximal end segment;
- at least one lettuce head guide connected to said at least one support platform;
said lettuce head guide comprising an elliptical ring; and
an aqueous solution spraying system fixedly attached at a point along said proximal end segment.

17. An apparatus for washing a plurality of cored heads of lettuce comprising

a conveyer forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached to said conveyer;
at least one lettuce head guide connected to said at least one support platform;
said lettuce head guide comprising a spike; and
an aqueous solution spraying system fixedly attached at a point along said
conveyer loop.

18. An apparatus for washing a plurality of cored heads of lettuce comprising
a conveyer forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached to said conveyer through a double pitch
attachment style chain;
at least one lettuce head guide connected to said at least one support platform;
said lettuce head guide comprising a spike; and
an aqueous solution spraying system fixedly attached at a point along said
conveyer loop.

19. An apparatus for washing a plurality of cored heads of lettuce comprising
a conveyer forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached to said conveyer;
said conveyer comprising;
(A) a middle segment with a first end and a second end;
(B) a distal end segment rotatably attached to said first end;
(C) a proximal end segment rotatably attached to said second end;
(D) a rotator to rotate and hold in place at a desired angle said distal
end segment; and
(E) a rotator to rotate and hold in place at a desired angle said proximal

end segment;

at least one lettuce head guide connected to said at least one support platform;
said lettuce head guide comprising a spike; and
an aqueous solution spraying system fixedly attached at a point along said
conveyer loop.

20. An apparatus for washing a plurality of cored heads of lettuce comprising
a conveyer forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached to said conveyer through a double pitch
attachment style chain;
said conveyer comprising;
- (A) a middle segment with a first end and a second end;
 - (B) a distal end segment rotatably attached to said first end;
 - (C) a proximal end segment rotatably attached to said second end;
 - (D) a rotator to rotate and hold in place at a desired angle said distal
end segment; and
 - (E) a rotator to rotate and hold in place at a desired angle said proximal
end segment;
- at least one lettuce head guide connected to said at least one support platform;
said lettuce head guide comprising a spike; and
an aqueous solution spraying system fixedly attached at a point along said
conveyer loop.

21. An apparatus for washing a plurality of cored heads of lettuce comprising
a conveyer forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached to said conveyer;
said conveyer comprising;

- (A) a middle segment with a first end and a second end;
(B) a distal end segment rotatably attached to said first end;
(C) a proximal end segment rotatably attached to said second end;
(D) a rotator to rotate and hold in place at a desired angle said distal end segment; and
(E) a rotator to rotate and hold in place at a desired angle said proximal end segment;

at least one lettuce head guide connected to said at least one support platform;
said lettuce head guide comprising a spike; and
an aqueous solution spraying system fixedly attached at a point along said proximal end segment.

22. An apparatus for washing a plurality of cored heads of lettuce comprising
a conveyer forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached through a double pitch attachment style chain to said conveyer;
said conveyer comprising;

- (A) a middle segment with a first end and a second end;
(B) a distal end segment rotatably attached to said first end;
(C) a proximal end segment rotatably attached to said second end;
(D) a rotator to rotate and hold in place at a desired angle said distal end segment; and
(E) a rotator to rotate and hold in place at a desired angle said proximal end segment;

at least one lettuce head guide connected to said at least one support platform;
said lettuce head guide comprising a spike; and
an aqueous solution spraying system fixedly attached at a point along said proximal end segment.

23. The apparatus of claim 1 further comprising at least one finger located substantially adjacent to said proximal end.

5 24. An apparatus for washing a plurality of cored heads of lettuce comprising
a conveyer forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached to said conveyer;
at least one lettuce head guide connected to said at least one support platform; and
10 an aqueous solution spraying system fixedly attached at a point along said
conveyer loop;
said aqueous solution spraying system comprising;
a tank for holding an aqueous solution;
a pump;
15 said pump delivering said aqueous solution under pressure to
at least one nozzle.

20 25. An apparatus for washing a plurality of cored heads of lettuce comprising
a conveyer forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached to said conveyer;
at least one lettuce head guide connected to said at least one support platform;
an aqueous solution spraying system fixedly attached at a point along said
conveyer loop;
25 said aqueous solution spraying system comprising;
a tank for holding an aqueous solution;
a determiner of a level of said aqueous solution in said tank;
said determiner connected to an inlet valve;
said inlet valve connected to a reservoir containing said aqueous solution;
a pump; and

said pump delivering said aqueous solution under pressure to
at least one nozzle.

- 5 26. An apparatus for washing a plurality of cored heads of lettuce comprising
a conveyer forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached to said conveyer;
at least one lettuce head guide connected to said at least one support platform;
10 an aqueous solution spraying system fixedly attached at a point along said
conveyer loop;
said aqueous solution spraying system comprising;
a tank for holding an aqueous solution;
a pump;
said pump delivering said aqueous solution under pressure to
15 at least one nozzle; and
where said at least one nozzle delivers said aqueous solution at a high pressure and
a low volume.

- 20 27. An apparatus for washing a plurality of cored heads of lettuce comprising
a conveyer forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached to said conveyer;
at least one lettuce head guide connected to said at least one support platform;
25 an aqueous solution spraying system fixedly attached at a point along said
conveyer loop;
said aqueous solution spraying system comprising;
a tank for holding an aqueous solution;
a pump;
said pump delivering said aqueous solution under pressure to

at least one nozzle;

where said at least one nozzle delivers said aqueous solution at a low pressure and a high volume.

- 5 28. An apparatus for washing a plurality of cored heads of lettuce comprising
a conveyer forming a loop with a distal end and a proximal end;
at least one support platform having at least one opening;
said at least one support platform attached to said conveyer;
at least one lettuce head guide connected to said at least one support platform;
10 an aqueous solution spraying system fixedly attached at a point along said
conveyer loop;
said aqueous solution spraying system comprising;
a tank for holding an aqueous solution;
a pump;
15 said pump delivering said aqueous solution under pressure to
at least two nozzles at least one of which delivers said aqueous solution at a high
pressure and a low volume and at least one of which delivers said aqueous solution
at a low pressure and a high volume.

- 20 29. A method for washing at least one head of lettuce with a cored hole comprising the steps
of

placing said at least one cored lettuce head in a position such that the cored hole
faces substantially downward;

25 conveying said at least one cored lettuce head to an aqueous solution spraying
system;

delivering an aqueous solution into said core hole for a time and at a pressure
sufficient to wash said core hole; and

removing said at least one cored lettuce head from said position.

30. The method of claim 29 wherein said placing step comprises seating said cored lettuce head on a guide which has a path for said aqueous solution, said guide being attached to a support platform which has at least one opening.

5 31. The method of claim 30 wherein said conveying step comprises conveying said guide along a path forming a loop.

10 32. The method of claim 31 wherein said path forming a loop has a distal end, and a proximal end, such that said guide is conveyed in a substantially upright position from said distal end to said proximal end, and in a substantially inverted position from said proximal end to said distal end.

33. The method of claim 32 wherein said proximal end is elevated in relation to said distal end.

15 34. The method of claim 29 where said step of delivering an aqueous solution into said core hole further comprises using

with
a tank containing said aqueous solution;

connected to said tank
at least one nozzle; and

a pump to deliver said aqueous solution to said at least one nozzle.

20 35. The method of claim 34 where said at least one nozzle sprays said aqueous solution at a ~~high~~ *low* pressure and a ~~low~~ *high* volume.

25 36. The method of claim 34 where said at least one nozzle sprays said aqueous solution at a low pressure and a high ~~volume~~.

a first and a second
37. The method of claim 34 where at least two nozzles are used, where at least one *first* nozzle sprays said aqueous solution at a high pressure and a low volume, and where at least one nozzle sprays said aqueous solution at a low pressure and a high volume.

38. The method of claim 34 comprising the further steps of collecting, filtering, and recycling said aqueous solution which drains from said lettuce heads.

39. The method of claim 34 comprising the further step of maintaining a level of said aqueous solution in said tank at a predetermined level.

40. The method of claim 39 wherein said level of said aqueous solution is maintained by using a float level which is connected to an inlet valve connected to a reservoir tank.

41. The method of claim 30 wherein the step of removing said at least one lettuce head from said guide further comprises rotating said lettuce head through an angle to a substantially inverted position. *any other procedure desired*

42. The method of claim 41 wherein the step of removing said at least one lettuce head from said guide further comprises using at least one finger. *done*
known